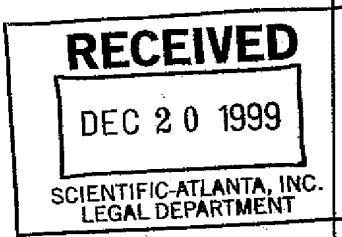


# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: HERBERT J. BARNHARDT, III  
SCIENTIFIC-ATLANTA, INC.  
ONE TECHNOLOGY PARKWAY SOUTH  
NORCROSS, GA 30092



**PCT**

## NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

**13 DEC 1999**

|  |  |  |
|--|--|--|
| Applicant's or agent's file reference<br><br>F-3472-PC | <b>IMPORTANT NOTIFICATION</b>                                  |  |
| International application No.<br><br>PCT/US98/15985    | International filing date (day/month/year)<br><br>31 JULY 1998 | Priority Date (day/month/year)<br><br>01 AUGUST 1997 |
| Applicant<br><br>SCIENTIFIC-ATLANTA, INC.              |  |  |

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

|  |   |
|--|---|
| Name and mailing address of the IPEA/US<br><br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231<br><br>Facsimile No. (703) 305-3230 | Authorized officer<br><br>GILBERTO BARRÓN JR.<br><br>Telephone No. (703) 305-1830 |
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## PATENT COOPERATION TREATY

**PCT**

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

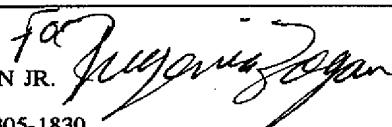
|  |   |  |
|--|---|--|
| Applicant's or agent's file reference<br>F-3472-PC   | FOR FURTHER ACTION      See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |  |
| International application No.<br>PCT/US98/15985  | International filing date (day/month/year)<br>31 JULY 1998  | Priority date (day/month/year)<br>01 AUGUST 1997 |
| International Patent Classification (IPC) or national classification and IPC<br>IPC(6): H04N 7/167; H04L 9/32 and US Cl.: 380/241, 281, 30 |   |  |
| Applicant<br>SCIENTIFIC-ATLANTA, INC.  |   |  |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
  2. This REPORT consists of a total of 6 sheets.
- This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

|  |   |
|--|---|
| Date of submission of the demand<br><br>26 FEBRUARY 1999   | Date of completion of this report<br><br>29 NOVEMBER 1999   |
| Name and mailing address of the IPEA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231<br>Facsimile No. (703) 305-3230 | Authorized officer<br><br>GILBERTO BARRÓN JR. <br>Telephone No. (703) 305-1830 |

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US98/15985

**I. Basis of the report**

1. This report has been drawn on the basis of (*Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments*):
  - the international application as originally filed.
  - the description, pages 1-78, as originally filed.  
pages NONE, filed with the demand.  
pages NONE, filed with the letter of \_\_\_\_\_.  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
  - the claims, Nos. 1-18, as originally filed.  
Nos. NONE, as amended under Article 19.  
Nos. NONE, filed with the demand.  
Nos. NONE, filed with the letter of \_\_\_\_\_.  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
  - the drawings, sheets/fig 1-21, as originally filed.  
sheets/fig NONE, filed with the demand.  
sheets/fig NONE, filed with the letter of \_\_\_\_\_.  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

## 2. The amendments have resulted in the cancellation of:

- the description, pages NONE.
- the claims, Nos. NONE.
- the drawings, sheets/fig NONE.

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the **Supplemental Box Additional observations below (Rule 70.2(c))**.

## 4. Additional observations, if necessary:

NONE

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

|                               |  |     |
|-------------------------------|--|-----|
| Novelty (N)                   | Claims <u>3, 8, 9, 12, 13, 14, 17 and 18</u> | YES |
|                               | Claims <u>1, 2, 4-7, 10, 11, 15 and 16</u>   | NO  |
| Inventive Step (IS)           | Claims <u>8, 13 and 17</u>                   | YES |
|                               | Claims <u>1-7, 9-12, 14-16 and 18</u>        | NO  |
| Industrial Applicability (IA) | Claims <u>1-18</u>                           | YES |
|                               | Claims <u>NONE</u>                           | NO  |

**2. CITATIONS AND EXPLANATIONS**

Claims 1, 2, 4-7, 10, 11, 15 and 16 lack novelty under PCT Article 33(2) as being anticipated by Bestler et al.

The Bestler patent discloses a conditional access system having a subscriber authorization bit map and an authorization list that meets the elements of claims 1 and 10, see column 4, lines 24-26. Column 5, lines 50-60 describe an operation uses the representation of entitlements described above for determining whether a subscriber has the entitlement value for the given instance to met dependent claims 2, 4-7, 11, 15 and 16. See column 4, lines 59-67 for the operation of setting the entitlement value and the map.

Claims 3 and 12 lack an inventive step under PCT Article 33(3) as being obvious over Bestler et al in view of Jeffers et al. Jeffers discloses a bit map having single bit elements representing the state of an entitlement value, see column 4, lines 10-11. To provide for representing entitlement state values by single-bit elements would not involve an inventive step as Jeffers teaches such memory maps are known to represent entitlement values in conditional access systems.

Claims 9 and 14 an inventive step under PCT Article 33(3) as being obvious over Bestler et al in view of Bennett et al. Bennett teaches a conditional access system having entitlement values and operation limited by time values, see column 17, lines 43-45. To provide for entitlement values having time values would not involve an inventive step as Bennett teaches that time limiting values are used in conditional access systems.

Claim 18 lacks an inventive step under PCT Article 33(3) as being obvious over Bestler et al in view of Coutrot et al. Coutrot teaches a conditional access system wherein entitlement values are authenticated by digital signature, see column 5, lines 39-52. To use digital signatures for authenticating the entitlement values would not involve an inventive step as Coutrot teaches it is known to limit entitlements by time values in conditional access systems.

(Continued on Supplemental Sheet.)

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US98/15985

**VI. Certain documents cited****1. Certain published documents (Rule 70.10)**

| Application No.<br>Patent No. | Publication Date<br>(day/month/year) | Filing Date<br>(day/month/year) | Priority date (valid claim)<br>(day/month/year) |
|-------------------------------|--------------------------------------|---------------------------------|---|
| US, A, 5,742,677              | 21 APR 1998                          | 03 APR 1995                     | NONE  |

**2. Non-written disclosures (Rule 70.9)**

| Kind of non-written disclosure | Date of non-written disclosure<br>(day/month/year) | Date of written disclosure<br>referring to non-written disclosure<br>(day/month/year) |
|--------------------------------|--|---|
|                                |  |   |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US98/15985

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 3 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claim is indefinite for the following reason(s): There is no antecedent basis for "the array".

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**V. 2. REASoNED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):**

Claims 8, 13 and 17 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the operations of an entitlements agent as recited in the instant claims.

**----- NEW CITATIONS -----**

US 5,036,537 A (Jeffers et al) 30 JULY 1991, see column 4, lines 10-11.

US 4,864,615 A (Bennett et al) 05 SEPTEMBER 1989, see column 17, lines 43-45.

US 5,301,233 A (Coutrot et al) 05 APRIL 1994 see column 5, lines 39-52.